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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,395	10/01/2003	Margherita T. Cantorna	057971-5006	4418

9629 7590 04/02/2007

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EXAMINER	
OLSON, ERIC	
ART UNIT	PAPER NUMBER
1623	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/674,395	CANTORNA ET AL.	
	Examiner	Art Unit	
	Eric S. Olson	1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32 and 41-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32 and 41-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *February 12, 2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

This office action is a response to applicant's amendment submitted February 12, 2007 wherein claims 13 and 25 are amended. This application claims priority to provisional application 60/415452, filed October 1, 2002, and provisional application 60/418818, filed October 11, 2002.

Claims 1-32 and 41-43 pending in this application.

Claims 1-32 and 41-43 as amended are examined on the merits herein.

Applicant's amendment, filed February 12, 2007 with respect to the objection to instant claim 13 for misspelling of the word "thiazolidinedione," has been fully considered and found to be persuasive to remove the rejection as the claim as amended is correctly spelled. Therefore the objection is withdrawn.

Applicant's amendment, filed February 12, 2007 with respect to the rejection to instant claims 25-32 under 35 USC 112, second paragraph, for containing the indefinite phrase, "L and M combine with each other and cooperate jointly to form a linkage and a plurality of salts," has been fully considered and found to be persuasive to remove the rejection as the claim as amended clearly and distinctly define L and M as hydrogen. Therefore the rejection is withdrawn.

Applicant's amendment, submitted February 12, 2007, necessitates the following new grounds of rejection:

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 25-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant's amendment submitted January 8, 2007 with respect to the aforementioned claims has been fully considered and but is deemed to insert **new matter** into the claims since the specification as originally filed does not provide support for a structure in which L and M are both hydrogen. As the instant specification as filed contains no description of such compounds, the specification as originally filed does not provide support for the subject matter of instant claims 25-32. See *in re Smith*, 458 F.2d 1389, 1395, 173 USPQ 679, 683 (CCPA 1972). Because Applicant's amendment necessitated this new ground of rejection, the rejection is made **FINAL**.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 8-13, 16-20, 23-26, and 30-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Needleman. (US patent publication 20030220374) Needleman discloses a method of treating inflammation or an inflammation related disorder comprising administering a PPARγ agonist. (p. 3, paragraph 0021) PPARγ agonists useful in this invention include ciglitazone, darglitazone, rosiglitazone, troglitazone, and the compound AD-5075, which is a compound having the structure disclosed in instant claims 25. (5-[4-[2-(5-methyl-2-phenyl-4-oxazoyl)-2-hydroxyethoxy]benzyl]-2,4-thiazolidinedione, pp. 4-5, paragraph 0042, table 1) This method of treatment is useful for treating various disorders including asthma. (p. 40, paragraph 1079) A preferred dosage level for the PPARγ agonist is about 0.2-10 mg/kg of subject body weight. (p. 38, paragraph 1061) The therapeutic agent can be administered in a number of various dosage forms and routes, including oral dosage forms. (p. 42, paragraph 1099) Thus the claimed invention is anticipated by Needleman et al. Because Applicant's amendment necessitated this new ground of rejection, the rejection is made **FINAL**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-8, 14, 15, 21, 22, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Needleman. (US patent publication 20030220374) The disclosure of Needleman is discussed above. Needleman does not disclose a method of treating allergic asthma or a method comprising administering about 2 mg/kg /day of active agent.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Needleman to treat an allergic asthma and to administer about 2 mg/kg of active agent. One of ordinary skill in the art would have been motivated to modify the invention in this manner because Needleman discloses a method of treating asthma generally and because Needleman discloses a preferred dosage range of 0.2-10 mg/kg of subject body weight. One of ordinary skill in the art would reasonably have expected success in treating allergic asthma because the compounds of Needleman are disclosed to be generally useful in the treatment of inflammatory diseases such as asthma. One of ordinary skill in the art would reasonably have expected success in administering a dose of 2 mg/kg/day because this dose is within a preferred dosage range. Furthermore, it is well established that merely selecting proportions and ranges is not patentable absent a showing of criticality. See *In re* Becket, 33 USPQ 33 (CCPA 1937), *In re* Russell, 439 F. 2d 1228, 169 USPQ 426 (CCPA 1971).

Thus the invention taken as a whole is *prima facie* obvious. Because Applicant's amendment necessitated this new ground of rejection, the rejection is made **FINAL**.

The following grounds of rejection, of record in the previous office action, are maintained:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Base claims 1 and 25 recite the limitation, a subject having, **or susceptible to having**." The specification further defines, "susceptible," to mean that a subject has a predisposition or likelihood of developing an asthma, allergy, or type I hypersensitivity, without yet exhibiting detectable symptoms. It is unclear how many subjects are included within the scope of this limitation. In particular, because any individual may at some point in their life develop one of these disorders, it is possible to interpret this limitation to cover every living subject, even perfectly healthy ones who may develop an asthma, allergy, or hypersensitivity. Alternately, it is also reasonable to interpret this limitation to cover only subjects who actually have a disorder which has not yet manifested clinical symptoms but which will if left untreated.

Response to Argument: Applicant's arguments, submitted February 12, 2007, with respect to the above grounds of rejection, have been fully considered and not

found to be persuasive to remove the rejection. Applicant argues that paragraph 0044 of the specification provides a definition for the term "susceptible". However, paragraph 0044 merely states that the term refers to, "the predisposition or likelihood that a particular subject will develop an allergy, asthma, or type I hypersensitivity," and that the disorder, "may not have yet developed, is inactive, or has not progressed to the point where symptoms or indications are exhibited by the subject." Contrary to Applicant's assertion, this definition does not define the susceptible population in terms of pre-existing allergies and type I hypersensitivity reactions, family history, or genetic or other phenotypic tests, but simply states that such an individual is "predisposed," or "is likely" to develop an allergy, asthma, or type I hypersensitivity. As written in the instant specification, the definition of susceptibility is sufficiently vague to render it impossible to determine who is or is not considered susceptible. Therefore the rejection is deemed proper and made **FINAL**.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, 4-24, and 41-43 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of treating a subject having a type I hypersensitivity, asthma, or allergy comprising administering ciglitazone or other pharmaceutical agents shown in the art to be useful for this purpose, does not reasonably provide enablement for such a method involving any PPAR-γ agonist. The

specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

The Applicant's attention is drawn to *In re Wands*, 8 USPQ2d 1400 (CAFC1988), at 1404 where the court set forth eight factors to consider when assessing if a disclosure would have required undue experimentation. Citing *Ex parte Forman*, 230 USPQ 546 (BdApls 1986) at 547 the court recited eight factors:

(1) The nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claims; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary.

Nature of the invention: The invention is drawn to a method of treating disease by administering a pharmaceutical compound.

The state of the prior art: A number of PPAR-γ agonists are known in the art, including ciglitazone, troglitazone, and others. These compounds are also known to be useful as anti-inflammatory agents and for the treatment of asthma. The prior art does not exhaustively disclose the full range of PPAR-γ agonists, or disclose a general principle which would inform one skilled in the art how to determine the PPAR-γ agonist activity of a hypothetical compound without actually synthesizing and assaying the compound.

The relative skill of those in the art: The relative skill of those in the art is high.

The predictability or unpredictability of the art: According to Silverman (The Organic Chemistry of Drug Design and Drug action, reference included with PTO-892) it is easier to design an antagonist than an agonist, and an agonist may often be transformed into an antagonist by appropriate structural modifications. (p. 70, first paragraph) Therefore for most agonists, there are expected to exist many derivatives which are antagonists, that is which retain the ability to bind the target receptor but not the ability to activate said receptor. For this reason the determination of the agonist or antagonist activities of a group of compounds is unpredictable. Furthermore, in order to identify a compounds specifically as an agonist, the compound must be identified by a reporter assay. Merely observing binding does not rule out the possibility that the compound is an antagonist.

The Breadth of the claims: The instant claims are very broad, reading on methods involving each and every chemical compound which binds and activates the PPAR-γ receptor. It should be noted that this class of compounds includes peptides, nucleic acids, and other biomolecules which activate the receptor.

The amount of direction or guidance presented: Applicant's disclosure suggests that the agonist or antagonist activity of potential compounds may be determined by various *in vitro* assays found in the prior art. (paragraph 0056) No general rule is given by which PPAR-γ agonists may be identified without performing a reporter assay.

The presence or absence of working examples: The only working examples given concern one compound, ciglitazone. This compound is not representative of all PPAR-γ agonists.

Note that lack of working examples is a critical factor to be considered, especially in a case involving an unpredictable and undeveloped art such as the design of novel agonists. See MPEP 2164.

The quantity of experimentation necessary: One of ordinary skill in the art, in order to practice the invention of claim 1 with the full range of PPAR-γ agonists beyond the meager number disclosed in the specification would be required to test potential compounds *in vitro* in a reporter assay to determine whether a they activate the PPAR-γ receptor. According to the 2006 Chemical Abstracts catalog, The Chemical Abstracts Registry contains entries for approximately 26 million compounds, all of which are potentially included in the claimed invention if they happen to PPAR-γ agonist activity. For most compounds, it is unknown whether they are or are not useful as PPAR-γ agonists. Gathering this data for every possible chemical compound which may be a PPAR-γ agonist would involve a significant synthetic effort in order to produce a representative sample of each and every compound which could possibly possess this activity, regardless how exotic, unstable, or synthetically demanding. Once synthesized, the compounds would be subjected to a PPAR-γ reporter assay or observed *in vitro* for their effects on cell cultures to determine their PPAR-γ agonist activity.

This process would be repeated for a very large set of compounds due to the breadth of the claims. These compounds would span the areas of organic, inorganic, and biological chemistry, and would share no common structural element or synthetic method. Thus the process of preparing the compounds to be tested would be far from

routine and would involve the development of many novel synthetic methods, each of which would be burdensome and unpredictable in its own right, thus presenting an undue and unpredictable experimental burden to one skilled in the art wishing to practice the invention.

Genentech, 108 F.3d at 1366, sates that, "a patent is not a hunting license. It is not a reward for search, but compensation for its successful conclusion." And "patent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable."

Therefore, in view of the Wands factors, as discussed above, particularly the broad scope of the claims, the unpredictability of the art, and the lack of guidance from Applicant's disclosure, Applicants fail to provide information sufficient to practice the claimed invention for all PPAR-γ agonists.

Response to Argument: Applicant's argument, submitted February 12, 2007, with respect to the above grounds of rejection, has been fully considered and not found persuasive to remove the rejection. Applicant argues that the specification provides various examples of PPAR-γ agonists along with multiple assays for determining whether an agonist would be effective in treating the claimed conditions. Applicant further argues that PPAR-γ agonists are well-known compounds in the prior art. However, the existing assays and working examples are not sufficient to enable the claimed invention for the massive, open-ended scope of claimed compounds. IN particular, as mentioned in the previous office action, it would not be possible for one skilled in the art to produce or obtain the wide diversity of compounds needed to

adequately test the entire scope of all possible chemical substances that could happen to fit the description of the claimed invention. Even if determining the utility of a candidate compound required nothing more than the mere possession of a sample of said compound, one skilled in the art would still face an undue and unpredictable burden in producing a sample of each and every novel compound that would have to be tested for activity.

Applicant also argues that the scope of the invention is not broad because they encompass only PPAR-γ agonists that activate the receptor and are effective in treating type I hypersensitivity, asthma, and allergies. Far from simplifying the required amount of experimentation, this additional requirement would actually lead to additional experimentation necessary to practice the invention as a mere binding assay is not sufficient to determine whether a particular compound meets these requirements.

Finally, Applicant argues that working examples are not necessary to enable an invention. However, the lack of working examples is one factor among many to be considered in evaluating the enablement of the claims, and the lack of working examples covering any significant portion of the range of claimed compounds weighs against enablement of the claims.

For these reasons the rejection is deemed proper and made **FINAL**.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 5, 8-10, and 41-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Pershadsingh. (PCT international Publication WO02/13812, included with PTO-892) Pershadsingh discloses a method of treating inflammatory diseases in a mammal, particularly a human, comprising administering a PPAR-γ agonist. (p. 13, lines 25-32, p. 14, lines 12-14) Inflammatory diseases which may be treated in this manner specifically include asthma and allergic asthma. (p. 24, lines 16-19) The PPAR-γ agonist may be administered by a variety of routes including topically, by inhalation, intravenously, intramuscularly, or parenterally. (p. 15, lines 1-10) This disclosure is therefore drawn to a method of treating human having a type I hypersensitivity, asthma, or allergy, comprising administering a therapeutically effective amount of at least one PPAR-γ agonist, as disclosed by the instant claims. Although Pershadsingh does not specifically mention that the disclosed invention operates by regulating T_H2 cell function, or production of IL-4, IL-5, and IL-13, as described in instant claims 41-43, Applicant's recitation of a new mechanism of action for the prior art method will not, by itself distinguish the instant claims over the prior art teaching of the same or nearly the same method steps. Note that a mechanism of action of a treatment would not by itself carry patentable weight if the prior art teaches the same or nearly the same method steps. In the instant case, the steps disclosed in the reference are the same as in the instant

claims, administering the same compound in the same amounts to the same or similar cells or subjects by the same mode of administration. See *Ex parte Novitski* 26 USPQ 2d 1389, 1391 (Bd. Pat. App. & Int. 1993). Note that the claiming of a new use, new function, or unknown property which is inherently present in the prior art does not make the claim patentable. See *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). See also *Eli Lilly and Co. v. Barr Laboratories Inc.* 251 F3c. 955; 58 USPQ2d 1869-1881 (Fed. Cir. 2001) with regard to inherency as it relates to the claimed invention herein.

Pershadsingh thus anticipates the claimed invention.

Response to Argument: Applicant's argument, submitted February 12, 2007, with respect to the above grounds of rejection, has been fully considered and not found persuasive to remove the rejection. Applicant argues that the invention of Pershadsingh could not successfully treat asthma because it promotes the Th2 response which would increase the severity of the patient's condition. This argument is not convincing in view of the fact that Pershadsingh explicitly states that PPAR-γ agonists are useful for treating inflammatory disorders, includes embodiments identical to embodiments of the claimed invention, and mentions asthma and allergy as disorders treatable in this manner. The fact that Applicant recites a different mechanism of action for the claimed invention does not serve to differentiate Applicant's claimed invention from that of Pershadsingh. In order to dispute the enablement of a prior art reference, Applicant must provide actual evidence demonstrating that the cited reference is not in fact enabled. (i.e. that the administration of PPAR-γ agonists as practiced by Pershadsingh

is not effective in treating asthma or allergies) In fact, Applicant's specification discloses the opposite conclusion, that PPAR-γ agonists are useful for this purpose, and does not differentiate Applicant's method from that of Pershadsingh in any material way.

Thus the rejection is deemed proper and made **FINAL**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 6, 7, and 11-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pershadsingh. (PCT international Publication WO02/13812, included with PTO-892) in view of Adams et al. (US patent 6090836, cited in PTO-892) Pershadsingh discloses a method of treating inflammatory diseases in a mammal, particularly a human, comprising administering a PPAR-γ agonist. (p. 13, lines 25-32, p. 14, lines 12-14) Inflammatory diseases which may be treated in this manner specifically include asthma and allergic asthma. (p. 24, lines 16-19) The PPAR-γ agonist may be administered by a variety of routes including topically, by inhalation, intravenously, intramuscularly, or parenterally. (p. 15, lines 1-10) PPAR-γ agonists useful in this method include any PPAR-γ agonist, including natural and synthetic, and those yet to be discovered. (p. 16, lines 19-26) The thiazolidinedione derivatives of US patent application 09/520208, now US patent 6353011, are a particularly preferred

embodiment. Other compounds, including both thiazolidinediones and non-thiazolidinediones, are disclosed as PPAR-γ agonists. (p. 25, lines 1-10) Troglitazone and roglitazone are also mentioned as being encompassed by the scope of the invention. (p. 21, lines 4-5, 13, and 15) The compounds may be administered in a dose of between 0.5-100 mg, 10-500 mg, or 100-5000 mg, for a total range of between about 0.7 and 70 mg/kg per day. Pershadsingh does not explicitly disclose a specific examples comprising administering specific thiazolidinedione or non-thiazolidinedione compounds as disclosed in instant claims 3 and 11-24 or administering specific dosage ranges as disclosed in instant claims 6, 7, 14, 15, 21, and 22.

Adams et al. discloses various PPAR-γ agonists having a non-thiazolidinedione structure. (column 3, line 18 – column 4, line 21, specific examples disclosed in columns 19-104) Adams et al. also discloses that many thiazolidinedione compounds are also PPAR-γ agonists. (column 2, lines 29-44)

It would have been obvious to one of ordinary skill in the art at the time of the invention to administer troglitazone, roglitazone, or any of the other particular agonists mentioned by Pershadsingh, or to administer any of the compounds of Adams et al. It would also have been obvious to administer these compounds in a dosage range of between 2-10 mg/kg as disclosed in instant claims 6, 7, 14, 15, 21, and 22. One of ordinary skill in the art would have been motivated to use particular thiazolidinedione or non-thiazolidinedione derivatives because Pershadsingh discloses that all PPAR-γ agonists are useful in the disclosed methods, and because specific compounds, such as the agonists indicated on p. 25, are mentioned which include both thiazolidinedione

(for example, reference 4) and non-thiazolidinedione (for example, US patent 6090836, Adams et al.) structures. One of ordinary skill in the art would have been motivated to administer these compounds in a dosage range of between 2-10 mg/kg because this range falls within the limitations already disclosed by Pershadsingh. One of ordinary skill in the art would have reasonably expected success because any PPAR-γ agonist, regardless of structure, is already included within the scope of the claims, and because selecting precise dosage amounts is well within the ordinary and routine level of skill in the art.

Thus the invention taken as a while is *prima facie* obvious.

Response to Argument: Applicant's argument, submitted February 12, 2007, with respect to the above grounds of rejection, has been fully considered and not found persuasive to remove the rejection. Applicant's arguments are identical to those made in response to the rejection of claims 1, 2, 4, 5, 8-10, and 41-43 under 35 USC 102 above, and are not found persuasive for the same reasons. Thus the rejection is deemed proper and made **FINAL**.

Summary

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric S. Olson whose telephone number is 571-272-9051. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Anna Jiang can be reached on (571)272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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AU 1623
3/20/07

Anna Jiang
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